

ABSTRACT OF THE DISCLOSURE**Curable Clay Composition:****Composition, Processes, and Uses Thereof**

Curable clay compositions containing at least one ethylenically unsaturated compound and exfoliated clay platelets are provided. The curable clay compositions are useful for preparing articles having improved barrier properties to oxygen, moisture, or odor such as flexible laminates. Methods including polymerization of the curable clay composition using electron beam radiation are provided and are suitable for preparing laminates or coatings with improved barrier properties. Also provided is a method for preparing the curable clay composition using a moving media mill.